



PTO/SB/088 (08-03)

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)		Complete if Known	
		Application Number	10/789,266
		Filing Date	02/26/04
		First Named Inventor	Thomas M. Jessel
		Art Unit	1636
		Examiner Name	to be assigned
Sheet 1	of 25	Attorney Docket Number	5199-169

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
/DG/		Abbondanzo et al., Derivation of embryonic stem cell lines.	
		Methods Enzymol., 225: 803-823, 1993	
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✓		Dev. Biol., 168: 342-357, 1995	

Examiner Signature	/Daniel Gamett/ (04/18/2007)	Date Considered	
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/DG/		Bak et al., The Hedgehog signaling pathway – implications for drug targets in cancer and neurodegenerative disorders.	
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		muscle-derived factors.	
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/DG/		Blumberg et al., An essential role for retinoid signaling in anteroposterior neural patterning.	
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/DG/		Byrd et al., Hedgehog is required for murine yolk sac angiogenesis.	
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		Chambon, P., The retinoid signaling pathway: molecular and genetic analysis.	
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/DG/		Chiang et al., Cyclopia and defective axial patterning in mice lacking Sonic hedgehog gene function.	
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6

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/DG/		Danielsen and Maihle, The EGF/ErbB receptor family and apoptosis.	
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/DG/		Ericson et al., Pax6 controls progenitor cell identity and neuronal fate in response to graded SHh signaling.	
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/DG/		Giles et al., Caught up in a Wnt storm: Wnt signaling in cancer.	
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↓		Brain Res., 132: 197-208, 1977	

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)		Complete if Known	
		Application Number	10/789,266
		Filing Date	02/26/04
		First Named Inventor	Thomas M. Jessel
		Art Unit	1636
		Examiner Name	to be assigned
Sheet 11 of 25	Attorney Docket Number	5199-169	

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
/DG/		Lauta, V. M., A review of the cytokine network in multiple myeloma: diagnostic, prognostic, and therapeutic implications.	
		Cancer, 97(10): 2440-2452, 2003	
		Lee et al., Transcriptional networks regulating neuronal identity in the developing spinal cord.	
		Nat. Neurosci., 4 Suppl. : 1183-1191, 2001	
		Lee et al., Efficient generation of midbrain and hindbrain neurons from mouse embryonic stem cells.	
		Nat. Biotechnol., 18: 675-679, 2000	
		Liu et al., Assigning the positional identity of spinal motor neurons. Rostrocaudal patterning of Hox-c expression by FGFs, Gdf11, and retinoids.	
		Neuron, 32: 997-1012, 2001	
		Lu et al., Common developmental requirement for Olig function indicates a motor neuron/oligodendrocyte connection.	
↓		Cell, 109: 75-86, 2002	

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/DG/		Malbon et al., Wnt signaling and heterotrimeric G-proteins: strange bedfellows or a classic romance?	
		Biochem. Biophys. Res. Commun., 287(3): 589-593, 2001	
		Mallamaci et al., OTX2 homeoprotein in the developing central nervous system and migratory cells of the olfactory area.	
		Mech. Dev., 58: 165-178, 1996	
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		Cell, 103: 295-309, 2000	
		McMahon, A. P., More surprises in the hedgehog signaling pathway.	
		Cell, 100: 185-188, 2000	
		Mezey et al., Turning blood into brain: cells bearing neuronal antigens generated in vivo from bone marrow.	
↓		Science, 290: 1779-1782, 2000	

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Sheet 13

of 25

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/DG/		Miyazono et al., Divergence and convergence of TGF-beta/BMP signaling.	
		J. Cell Physiol., 187(3): 265-276, 2001	
		Miyazono, K., Positive and negative regulation of TGF-beta signaling.	
		J. Cell Sci., 113(7): 1101-1109, 2000	
		Mizuguchi et al., Combinatorial roles of olig2 and neurogenin2 in the coordinated induction of pan-neuronal and subtype-specific properties of	
		motoneurons.	
		Neuron, 31: 757-771, 2001	
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↓		Science, 296(5573): 1644-1646, 2002	

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/DG/		Muhr et al., Convergent inductive signals specify midbrain, hindbrain, and spinal cord identity in gastrula stage chick embryos.	
		Neuron, 23: 689-702, 1999	
		Munoz-Sanjuan et al., Neural induction, the default model and embryonic stem cells.	
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		Nat. Neurosci., 5(6): 525-532, 2002	
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		Neuron, 31: 773-789, 2001	
		Nusse, R., Wnts and hedgehogs: lipid-modified proteins and similarities in signaling mechanisms at the cell surface.	
↓		Development, 130(22): 5297-5305, 2003	

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Sheet 15 of 25

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/DG/		O'Brien et al., Development and survival of thoracic motoneurons and hindlimb musculature following transplantation of the thoracic neural tube	
		to the lumbar region in the chick embryo: anatomical aspects.	
		J. Neurobiol., 21: 313-340, 1990	
		Ornitz and Itoh, Fibroblast growth factors.	
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		Pandur et al., Increasingly complex: new players enter the Wnt signaling network.	
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		Pattyn et al., Control of hindbrain motor neuron differentiation by the homeobox gene Phox2b.	
↓		Development, 127: 1349-1358, 2000	

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Sheet 16

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/DG/		Pevny et al., Generation of purified neural precursors from embryonic stem cells by lineage selection.	
		Curr. Biol., 8: 971-974, 1998	
		Pfaff et al., Requirement for LIM homeobox gene Isl1 in motor neuron generation reveals a motor neuron-dependent step in interneuron differentiation.	
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		Postigo, A.A., Opposing functions of ZEB proteins in the regulation of the TGF/BMP signaling pathway.	
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		Povelones and Nusse, Wnt signaling sees spots.	
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17

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/DG/		Raju et al., SANE, a novel leu domain protein, regulates bone morphogenetic protein signaling through interaction with smad1.	
		J. Biol. Chem., 278(1): 428-437, 2003	
		Rathjen et al., Directed differentiation of pluripotent cells to neural lineages: homogenous formation and differentiation of a neuroectoderm population.	
		Development, 129: 2649-2661, 2002	
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		Mech. Dev., 79: 185-197, 1998	
		Reubinoff et al., Neural progenitors from human embryonic stem cells.	
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/DG/		Roelink et al., Floor plate and motor neuron induction by different concentrations of the amino-terminal cleavage product of sonic hedgehog	
		autoproteolysis.	
		Cell, 81: 445-455, 1995	
		Sander et al., Ventral neural patterning by Nkx homeobox genes: Nkx6.1 controls somatic motor neuron and ventral interneuron fates.	
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		Brain Res., 913: 201-205, 2001	
		Sharma et al., Genetic and epigenetic mechanisms contribute to motor neuron pathfinding.	
		Nature, 406: 515-519, 2000	

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/DG/		Sharma et al., LIM homeodomain factors Lhx3 and Lhx4 assign subtype identities for motor neurons.	
		Cell, 95: 817-828, 1998	
		Shibamoto et al., Cytoskeletal reorganization by soluble Wnt-3a protein signaling.	
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		Nature, 406: 74-78, 2000	
		Tanabe et al., Specification of motor neuron identity by the MNR2 homeodomain protein.	
		Cell, 95: 67-80, 1998	
		Temple, S., The development of neural stem cells.	
↓		Nature, 414:112-117, 2001	

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/DG/		Terada et al., Bone marrow cells adopt the phenotype of other cells by spontaneous cell fusion.	
		Nature, 416: 542-545, 2002	
		Thaler et al., Active suppression of interneuron programs within developing motor neurons revealed by analysis of homeodomain factor HB9.	
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		mechanism.	
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Examiner Signature	/Daniel Gamett/ (04/18/2007)	Date Considered	
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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Complete if Known

Application Number 10/789,266

Filing Date 02/26/04

First Named Inventor Thomas M. Jessel

Art Unit 1636

Examiner Name to be assigned

Sheet 21 of 25

Attorney Docket Number 5199-169

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
/DG/		Uchida et al., Direct isolation of human central nervous system stem cells.	
		Proc. Natl. Acad. Sci. USA, 97: 14720-14725, 2000	
		Vallstedt et al., Different levels of repressor activity assign redundant and specific roles to NKx6 genes in motor neuron and interneuron specification.	
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		Cardiovasc. Res., 1: 16-24, 2002	
		Veeman et al., A second canon: functions and mechanisms of beta-catenin-independent Wnt signaling.	
↓		Dev. Cell 5(3): 367-377, 2003	

Examiner Signature	/Daniel Gamett/ (04/18/2007)	Date Considered	
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)		Complete if Known	
		Application Number	10/789,266
		Filing Date	02/26/04
		First Named Inventor	Thomas M. Jessell
		Art Unit	1636
		Examiner Name	to be assigned
Sheet 22 of 25	Attorney Docket Number	5199-169	

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/DG/		Waxman and Bennett, Relative conduction velocities of small myelinated and nonmyelinated fibres in the central nervous system.	
		Nature New Biol., 238:217, 1972	
		Weston et al., Revisiting the role of retinoid signaling in skeletal development.	
		Birth Defects Res. Part C Embryo Today, 69(2): 156-173, 2003	
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		Curr. Opin. Genet. Dev., 13(1): 34-42, 2003	
		Wilson et al., Neural induction: toward a unifying mechanism.	
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		Wilson et al., An early requirement for FGF signaling in the acquisition of neural cell fate in the chick embryo.	
↓		Curr. Biol., 10: 421- 429, 2000	

Examiner Signature	/Daniel Gamett/ (04/18/2007)	Date Considered	
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Complete if Known

Application Number	10/789,266
Filing Date	02/26/04
First Named Inventor	Thomas M. Jessell
Art Unit	1636
Examiner Name	to be assigned
Attorney Docket Number	5199-169

Sheet 23

of 25

NON PATENT LITERATURE DOCUMENTS

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/DG/		Wilson et al., Neural induction: toward a unifying mechanism.	
		Nat. Neurosci., 4 Suppl.: 1161-1168, 2001	
		Wilson et al., The status of Wnt signaling regulates neural and epidermal fates in the chick embryo.	
		Nature, 411: 325-330, 2001	
		Wodarz and Nusse, Mechanisms of Wnt signaling in development.	
		Annu. Rev. Cell Dev. Biol., 14: 59-88, 1998	
		Wood et al., Comparative expression of the mouse Sox1, Sox2 and Sox3 genes from pre-gastrulation to early somite stages.	
		Wrana, J., Regulation of Smad activity. Cell, 100: 189-192, 2000	
		Xian et al., Peering into early neurogenesis with embryonic stem cells.	
✓		Trends Neurosci., 24: 685-686, 2001	

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)		Complete if Known	
		Application Number	10/789,266
		Filing Date	02/26/04
		First Named Inventor	Thomas M. Jessel
		Art Unit	1636
		Examiner Name	to be assigned
Sheet 24 of 25	Attorney Docket Number		5199-169

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
/DG/		Yamada et al., Control of cell pattern in the developing nervous system: polarizing activity of the floor plate and notochord.	
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		Yamaguchi et al., XIAP, a cellular member of the inhibitor of apoptosis protein family, links the receptors to TAB1-TAK1 in the BMP signaling pathway.	
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		Yu et al., Platelet-derived growth factor signaling and human cancer.	
		J. Biochem. Mol. Biol., 36(1): 49-59, 2003	
		Zhang et al., In vitro differentiation of transplantable neural precursors from human embryonic stem cells.	
✓		Nat. Biotechnol., 19: 1129-1133, 2001	

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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

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Application Number		10/789,266	
Filing Date		02/26/04	
First Named Inventor		Thomas M. Jessel	
Art Unit		1636	
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/DG/		Zhou et al., The bHLH transcription factors OLIG2 and OLIG1 couple neuronal and glial subtype specification.	
		Cell, 109: 61-73, 2002	
		Liu et al., Assigning the positional identity of spinal motor neurons. Rostrocaudal patterning of Hox-c expression by FGFs, Gdf11, and	
		retinoids.	
		Neuron, 32: 997-1012, 2001	
		Wichterle et al., Directed differentiation of embryonic stem cells into motor neurons.	
		Cell, 110: 385-397, 2002	

Examiner Signature	/Daniel Gamett/ (04/18/2007)	Date Considered	
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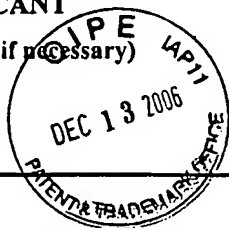
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Form PTO-1449 U.S. Department of Commerce (REV. 2-82) Patent and Trademark Office INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)	Atty. Docket No. 070050.2888	Serial No. 10/789,266
	Applicant Jessell et al.	
	Filing Date February 26, 2004	Group 1647
	Examiner Gamett, Daniel C.	



U.S. PATENT DOCUMENTS								
Exam. Initial.	No.	Document No.	Date	Name	Class	Subclass	Filing Date if Approximate.	
/DG/		7,115,653	October 3, 2006	Baxter et al.				
		20050203014	September 15, 2005	Rubin				
		20050080138	April 14, 2005	Guicherit et al.				
		2005001980	January 27, 2005	Rubin et al.				
		20050014796	January 20, 2005	Baxter et al.				
		20050266555	December 1, 2005	Lu et al.				
		20040023949	February 5, 2004	Baxter et al.				
		6,683,108	January 27, 2004	Baxter et al.				
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		6,552,016	September 2, 2003	Baxter et al.				
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